Clean Copy of Amended Claims

34. (Twice Amended) An amplification reaction mixture for the quantitation of a target viral RNA segment in a biological sample, said reaction mixture comprising:

said target viral RNA;

a predetermined initial amount of a control sequence for quantitation of a target viral RNA, wherein said control sequence and its complementary sequence bind the same primers as are bound by said target viral RNA segment and its complementary sequence; and

an oligonucleotide primer pair wherein said primer pair can serve to amplify said control sequence and said target viral RNA, wherein following amplification said control sequence and amplified target segments are distinguishable by size.

35. (Twice Amended) A reverse transcription reaction mixture for reverse transcribing a target mRNA suspected of being present in a biological sample, said reaction mixture comprising a predetermined initial amount of a control sequence cRNA, a target viral RNA, and a target-specific primer for initiating cDNA synthesis, wherein said primer can serve to initiate reverse transcription of a nucleic acid segment contained within said control sequence cRNA together with a segment contained within the particular target viral RNA, and wherein said control sequence is further distinguished by having a hybridization site identical in sequence to a hybridization site in said target viral RNA, whereby following reverse transcription the resulting target and control sequence cDNAs can serve as templates for amplification for providing control sequence and target amplified viral RNA segments which are distinguishable by size.

42. (Twice Amended) The mixture of claim 34, wherein the target viral RNA is contained within a nucleic acid sequence which encodes a protein associated with HIV or HCMV.

44. (Twice Amended) A kit for the quantitation of a target viral RNA segment in a biological sample comprising individual containers which provide:

a predetermined initial amount of a control sequence for quantitation of a target viral RNA wherein said control sequence binds the same primers as are bound by said target viral RNA segment and its complementary sequence; and

an oligonucleotide primer pair wherein said primer pair can serve to amplify said control sequence and said target viral RNA,

wherein following amplification said control sequence and target amplified viral RNA segments are distinguishable by size or by use of an internal oligonucleotide probe, and wherein the target viral RNA is contained within a nucleic acid sequence which encodes a protein associated with HIV or HCMV.

45. (Twice Amended) A plasmid for use as an internal control for quantitation of a target viral RNA sequence contained within a sample which plasmid comprises:

a control sequence comprising two sequences which provide primer hybridization sites in said plasmid which primer hybridization sites are identical to primer hybridization sites within said target viral RNA sequence such that a primer pair will function in a PCR reaction to amplify said control sequence and said target viral RNA segment, wherein upon amplification said control sequence and said target segments can be distinguished by size, and wherein the target viral RNA is contained within a nucleic acid sequence which encodes a protein associated with HIV or HCMV.

46. (Twice Amended) An amplification reaction mixture for the quantitation of a target viral RNA segment in a biological sample, said reaction mixture comprising:

said target viral RNA;

a predetermined initial amount of a control sequence for quantitation of a target viral RNA, wherein said control sequence binds the same primers as are bound by said target viral RNA segment; and

an oligonucleotide primer pair wherein said primer pair can serve to amplify said control sequence and said target viral RNA, wherein following amplification said control sequence and target amplified viral RNA segments are distinguishable by size or by the use of internal hybridization probes.

47. (Twice Amended) A reverse transcription reaction mixture for reverse transcribing a target mRNA suspected of being present in a biological sample, said reaction mixture comprising a predetermined initial amount of a control sequence cRNA, a target viral RNA, and a target-specific primer for initiating cDNA synthesis, wherein said primer can serve to initiate reverse transcription of a nucleic acid segment contained within said control sequence cRNA together with a segment contained within the particular target viral RNA, and wherein said control sequence is further distinguished by having a hybridization site identical in sequence to a hybridization site in said target viral RNA, whereby following reverse transcription the resulting target and control sequence cDNAs can serve as templates for amplification for providing control sequence and target amplified viral RNA segments which are distinguishable by size or by use of internal hybridization probes.